and second surfaces alternate with respect to each other, and wherein the coefficient of thermal expansion of the connector is approximately midway between the first and second coefficient of thermal expansion.

3. (Original) The electronic device of claim 1, wherein the connector comprises a laminate material.

4. (Original) The electronic device of claim 3, wherein the laminate material comprises:

a core;

a dielectric material surrounding the core; and

a solder mask.

5. (Original) The electronic device of claim 4, wherein the laminate further includes a plated through hole.

6. (Previously presented) The electronic device of claim 4, further including a connection between at least one contact on the first surface and at least one contact on the second surface.

7. (Previously presented) The electronic device of claim 6, further including a ground shield over the connection.

8. (Previously presented) The electronic device of claim 4, wherein the core comprises a material selected from the group consisting of: copper-invar-copper, copper, stainless steel, nickel, iron and

molybdenum.

9. (Previously presented) The electronic device of claim 4, wherein the dielectric material comprises polyimide.

10. (Previously presented) The electronic device of claim 1, wherein the contacts comprise ball grid array connections.

11. (Previously presented) The electronic device of claim 1, wherein the first substrate comprises a chip package.

12. (Previously presented) The electronic device of claim 1, wherein the second substrate comprises a printed circuit board.

13. (Previously presented) The electronic device of claim 1, further comprising a stiffener frame attached to the connector.

14. (Previously presented) The electronic device of claim 13, wherein the stiffener frame is adhesively attached to the connector.

15. (Previously presented) The electronic device of claim 13, wherein the stiffener frame surrounds a perimeter of the connector.

16. (Previously presented) The electronic device of claim 13, wherein the stiffener frame is removably attached to the connector.

17. (Previously presented) The electronic device of claim 13, wherein the stiffener frame is attached to a surface of the connector.

18. (Previously presented) The electronic device of claim 13, wherein the stiffener frame comprises a material selected from the group consisting of: plastic, metal and ceramic.

19. (Previously presented) The electronic device of claim 13, wherein the stiffener frame comprises a heat sink.

20. (Currently Amended) A connector system, comprising:

a first substrate having a first coefficient of thermal expansion;

a second substrate having a second coefficient of thermal expansion;

a flexible substrate connector having a core surrounded by a compliant material;

at least three contacts on a first surface of the ~~substrate~~ flexible connector; and

at least three contacts on a second surface of the ~~substrate~~ flexible connector, wherein the at least three contacts on the first surface of the ~~substrate~~ flexible connector are alternatingly off-set from the at least three contacts on the second surface of the ~~substrate~~ flexible connector, wherein the flexible connector has a coefficient of thermal expansion between the first and second coefficient of thermal expansion, wherein the contacts on the first surface of the connector are attached to the

first substrate, and wherein the contacts on the second surface of the connector are attached to the second substrate.

21. (Original) The connector system of claim 20, wherein the flexible substrate comprises a laminate material.

22. (Currently Amended) The connector system of claim 20, wherein the flexible ~~substrate~~ connector further comprises:

a solder mask over the compliant material.

23. (Currently Amended) The connector system of claim 20, wherein the flexible ~~substrate~~ connector further includes a plated through hole.

24. (Previously presented) The connector system of claim 20, further including a connection between at least one contact on the first surface and at least one contact on the second surface.

25. (Previously presented) The connector system of claim 20, further including a ground shield over the connection.

26. (Previously presented) The connector system of claim 20, wherein the core comprises a material selected from the group consisting of: copper-invar-copper, copper, stainless steel, nickel, iron and molybdenum.

27. (Previously presented) The connector system of claim 44, wherein the dielectric material comprises polyimide.

28. (Original) The connector system of claim of 20, wherein the contacts comprise ball grid array connections.

29. (Currently Amended) The connector system of claim 20, further including a stiffener frame attached to the flexible connector.

30. (Currently Amended) The connector system of claim 29, wherein the stiffener frame is removably attached to the flexible ~~substrate~~ connector.

31. (Currently Amended) A method of forming an electronic device, comprising:

providing a first substrate having a first coefficient of thermal expansion;

providing a second substrate having a second coefficient of thermal expansion;

providing a flexible connector having a core surrounded by a compliant material, and a plurality of alternating contacts on a first surface and a second surface of the flexible connector, wherein at least three contacts in succession on the first surface alternate with at least three contacts in succession on the second surface, wherein the flexible connector has a coefficient of thermal expansion between the first and second coefficient of thermal expansion; and

attaching the flexible connector between a first substrate and a second substrate via the contacts.

32. (Original) The method of claim 31, wherein the flexible connector comprises a laminate material.

33. (Original) The method of claim 31, wherein the contacts comprises ball grid array connections.

34. (Original) The method of claim 31, wherein select contacts on the first surface of the flexible connector are off-set from select contacts on the second surface of the flexible connector.

35. (Original) The method of claim 31, wherein the first substrate comprises a chip package.

36. (Original) The method of claim 31, wherein the second substrate comprises a printed circuit board.

37. (Previously presented) A method of forming an electronic device, comprising:
providing a first substrate having a first coefficient of thermal expansion;
providing a second substrate having a second coefficient of thermal expansion;
providing a flexible connector having a coefficient of thermal expansion between the first and second coefficient of thermal expansion, and having at least three alternating contacts on a first surface and at least three alternating contacts on a second surface of the connector; and
attaching the contacts on the first surface of the connector to the first substrate and the contacts on the second surface of the connector to the second substrate.

38. (Original) The method of claim 37, wherein the first substrate comprises a chip package.

39. (Original) The method of claim 37, wherein the second substrate comprises a printed circuit board.

40. (Original) The method of claim 37, wherein the flexible connector comprises a laminate material.

41. (Original) The method of claim 37, wherein the contacts comprise ball grid array connections.

42. (Original) A method of forming an electronic device, comprising:

providing a flexible connector having a plurality of alternating contacts on a first surface and a second surface of the flexible connector, and a stiffener frame surrounding a perimeter edge of the flexible connector; and

attaching the flexible connector between a first substrate and a second substrate via the contacts.

43. (Previously presented) A connector system, comprising:

a flexible substrate having a core surrounded by a compliant material; and

at least three contacts located at a far distance to a neutral point (DNP) on a first surface and at least three contacts located at a far distance to a neutral point (DNP) on a second surface of the substrate, wherein the contacts are off-set.

44. (Previously presented) The connector system of claim 20, wherein the compliant material comprises a dielectric material.

Conclusion

Applicants respectfully submit that the entire application is in condition for allowance. However, should the Examiner believe anything further is necessary in order to place the application in better condition for allowance, or if the Examiner believes that a telephone interview would be advantageous to resolve the issues presented, the Examiner is invited to contact the Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

Jack P. Friedman, Esq.
Reg. No.: 44,688

Date: 01/06/2004

Schmeiser, Olsen & Watts
3 Lear Jet Lane, Suite 201
Latham, NY 12110
(518) 220-1850
jfriedman@iplawusa.com